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EXAMINER

DUNWOODY, AARON M

ART UNIT	PAPER NUMBER
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3679

NOTIFICATION DATE	DELIVERY MODE
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08/27/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/583,966	Applicant(s) YAGISAWA ET AL.	
	Examiner AARON DUNWOODY	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,7-10 and 12-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7-10 and 12-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites “the first and second arc-shaped recesses engaging the convex or concave pipe-side engagement portion of the mating pipe”; however, it is not clear how arc-shaped recesses can engage both convex or concave pipe-side engagement portions.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 7, 8 and 16-23 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 6129393, Kodama et al.

In regards to claim 1, Kodama et al disclose a resin tube-equipped quick connector for connecting a fuel-transporting resin tube to a mating pipe (1), comprising a connector body (2), a C-shaped retainer (3) and a seal member (4);

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wherein the connector body has a generally tubular shape as a whole, has a retainer holding portion adapted to receive and hold the C-shaped retainer in an axial opening at one axial end thereof, and also has at an opposite axial end thereof, a press-fitting portion (27) which is press-fitted into the interior of the resin tube from one end thereof, wherein the retainer holding portion includes first and second windows opening through opposite curved sides thereof,

wherein the C-shaped retainer includes a first arc-shaped portion which projects outwardly into the first window of the retainer holding portion, and a second arc-shaped portion which projects outwardly into the second window of the retainer holding portion,

wherein the C-shaped retainer includes a retainer-side retaining engagement portion having a first and second arc-shaped openings which are adapted to engage with a convex pipe-side engagement portion, formed on an outer peripheral surface of the mating pipe and spaced from an axial insertion-side end thereof, so as to fix the inserted mating pipe in the axial direction;

wherein the seal member is mounted within the connector body at an inner region thereof disposed closer to the press-fitting portion than the retainer holding portion is disposed, and the seal member is brought into contact with an outer peripheral surface of an insertion end portion of the inserted mating pipe disposed closer to the distal end of the mating pipe than the pipe-side engagement portion is disposed, thereby forming an air-tight seal between the insertion end portion and an inner surface of the connector body; and

when the mating pipe is fixed in an axial direction in the C-shaped retainer, and the C-shaped retainer is held in the connector body, the convex engagement portion of the mating pipe is fixed in an axial direction in the C-shaped retainer, and the C-shaped retainer is held in the connector body, the convex engagement portion of the

wherein the resin tube includes a press-fit undergoing portion into which the press-fitting portion is press-fitted.

Note, the mating pipe and resin tube are not considered part of the claimed invention.

In regards to claim 2, Kodama et al disclose the retainer is elastically deformable radially, and the retainer-side retaining engagement portion capable of being fitted to a body-side retaining engagement portion, formed at the retainer holding portion of the connector body, from a radially-inward side to be retained and fixed in the axial direction, the retainer also including at least one of an inner peripheral cam surface for elastically expanding the retainer when inserting the mating pipe into the retainer and an outer peripheral cam surface for elastically reducing the diameter of the retainer when inserting the retainer into the retainer holding portion.

In regards to claim 4, Kodama et al disclose a protector is fitted on the resin tube to cover an outer peripheral surface of the resin tube.

In regards to claim 5, Kodama et al disclose the resin tube has a multi-layer structure an inner layer of the resin tube is more excellent in gasoline resistance than an outer layer.

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In regards to claim 7, Kodama et al disclose the resin tube includes an inner diameter of not larger than 5 mm.

In regards to claim 8, Kodama et al disclose a resin tube-equipped quick connector for connecting a fuel- transporting resin tube to a mating pipe, comprising:

a connector body, a C-shaped retainer and a seal member;

wherein the connector body has a generally tubular shape as a whole, and has a retainer holding portion adapted to receive and hold the C-shaped retainer in an axial opening at one axial end thereof, and also has at an other axial end thereof, a press-fitting portion which is press-fitted into the interior of the resin tube from one end thereof; wherein the retainer holding portion includes first and second box-shaped windows opening through opposite curved sides thereof;

wherein the C-shaped retainer includes a first arc-shaped portion which projects outwardly into the first box-shaped window of the retainer holding portion, and a second arc-shaped portion which projects outwardly into the second box shaped window of the retainer holding portion,

wherein the C-shaped retainer includes a retainer-side retaining engagement portion having first and second arc-shaped openings which are adapted to engage with a convex pipe-side engagement portion, formed on an outer peripheral surface of the mating pipe and spaced from an axial insertion-side end thereof, so as to fix the inserted mating pipe in the axial direction; and

when the mating pipe is fixed in an axial direction in the C-shaped retainer, and the C-shaped retainer is held in the connector body, the convex engagement portion of

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the mating pipe is visible when viewed through each of the first and second windows of the retainer holding portion,

the seal member is mounted within the connector body at an inner region thereof disposed closer to the press-fitting portion than the retainer holding portion is disposed, and the seal member is brought into contact with an outer peripheral surface of an insertion end portion of the inserted mating pipe disposed closer to the distal end of the mating pipe than the pipe-side engagement portion is disposed, thereby forming an air-tight seal between the insertion end portion and an inner surface of the connector body; and a press-fit undergoing portion of the resin tube into which the press-fitting portion is to be press-fitted; has an inner diameter that is expanded prior to press-fitting, and the press-fit undergoing portion is press-fitted in the tube diameter-expanded press-fit undergoing portion to be integrated therewith in a withdrawal-preventing condition.

Note, the mating pipe and resin tube are not considered part of the claimed invention.

In regards to claim 16, Kodama et al disclose a bushing (7) mounted within the connector body at a region deeper than the retainer holding portion.

In regards to claim 17, Kodama et al disclose coupling structure of a quick connector and a resin tube for connecting a fuel-transporting resin tube to a mating pipe, comprising

a connector body,

a retainer and

a seal member;

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wherein the connector body has a generally tubular shape as a whole, and has a retainer holding portion at one axial side thereof, and also has at the other side thereof a press-fitting portion which is press-fitted into the interior of the resin tube from one end thereof,

wherein the retainer holding portion includes first and second windows opening through opposite curved sides thereof,

wherein the retainer is a member adapted to be held in the retainer holding portion, and includes

a first arc-shaped portion which projects outwardly into the first window of the retainer holding portion, and a second arc-shaped portion which projects outwardly into the second window of the retainer holding portion, and

a retainer-side retaining engagement portion having first and second arc-shaped recesses which are adapted to engage with a convex or concave pipe-side engagement portion, formed on an outer peripheral surface of the mating pipe and spaced from an axial insertion-side end thereof, so as to fix the inserted mating pipe in the axial direction;

when the mating pipe is fixed in an axial direction in the retainer, and the retainer is held in the connector body, the first and second arc-shaped recesses engaging the convex or concave pipe-side engagement portion of the mating pipe are located under each of the first and second windows of the retainer holding portion,

wherein the seal member is mounted within the connector body at an inner region thereof disposed closer to the press-fitting portion than the retainer holding

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portion is disposed, and the seal member is brought into contact with an outer peripheral surface of an insertion end portion of the inserted mating pipe disposed closer to the distal end of the mating pipe than the pipe-side engagement portion is disposed, thereby forming an air-tight seal between the insertion end portion and an inner surface of the connector body; and wherein the resin tube is a small-diameter tube having an inner diameter of not larger than 5 mm, a press-fit undergoing portion into which the press-fitting portion is press-fitted.

Note, the mating pipe and resin tube are not considered part of the claimed invention.

In regards to claim 18, Kodama et al disclose the retainer is elastically deformable radially, and the retainer-side retaining engagement portion is capable of being fitted to a body-side retaining engagement portion, formed at the retainer holding portion of the connector body, from a radially-inward side to be retained and fixed in the axial direction, the retainer also including at least one of an inner peripheral cam surface for elastically expanding the retainer when inserting the mating pipe into the retainer and an outer peripheral cam surface for elastically reducing the diameter of the retainer when inserting the retainer into the retainer holding portion.

In regards to claim 19, Kodama et al disclose a protector fitted on the resin tube to cover an outer peripheral surface of the resin tube.

In regards to claim 20, Kodama et al disclose the resin tube has a multi-layer structure, having at least an inner layer and an outer layer, the inner layer being more resistant to gasoline than is the outer layer.

In regards to claim 21, Kodama et al disclose the resin tube comprises a polyamide resin.

In regards to claim 22, Kodama et al disclose the press-fitting portion comprises: annular projections formed respectively on a plurality of axially-different portions of a outer peripheral surface of the press-fitting portion, wherein an outer diameter d_6 of a root portion provided between adjacent annular projections and an inner diameter d_3 of the tube diameter-expanded press-fit undergoing portion are substantially the same, and wherein an axial length L of the press-fitting portion and an axial length L of the press-fitting undergoing portion are substantially the same.

In regards to claim 23, Kodama et al disclose before the press-fitting portion is press-fitted into the press-fit undergoing portion, the press-fit undergoing portion is formed with an inner diameter that is substantially equal to an outer diameter of the root portions of the press-fitting portion, and after the press-fitting portion is press-fitted into the press-fit undergoing portion of the resin tube, the press-fit undergoing portion is adapted to cause portions of its inner diameter facing the root portions to become equal to the outer diameter of the root portions, so that and the press-fit undergoing portion is integrated with the press-fitting portion in a withdrawal-preventing condition.

Note, claim 23 is considered a product-by-process claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

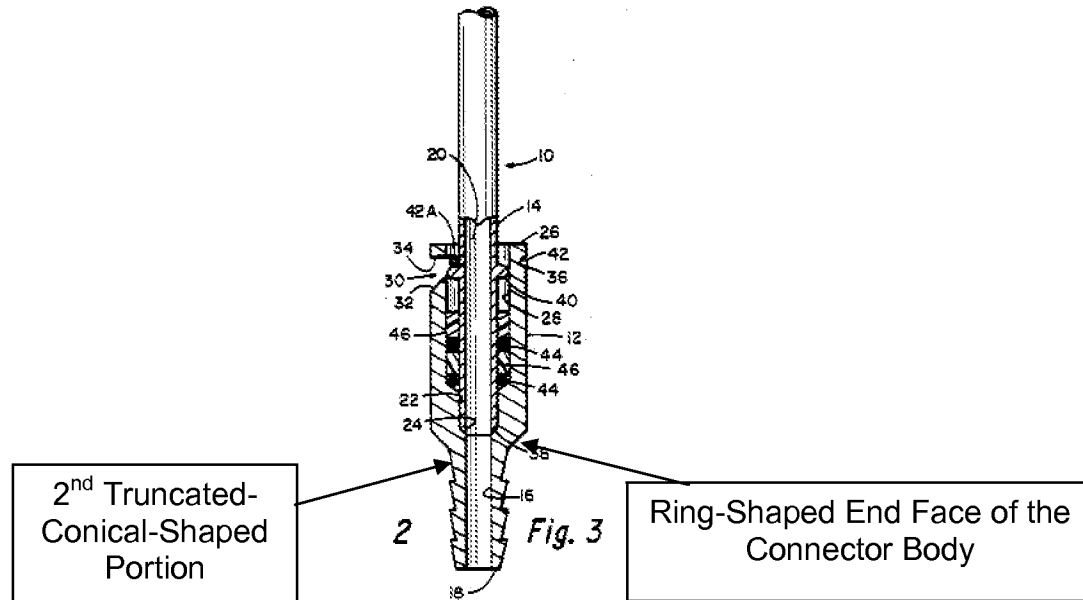
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodama et al in view of US patent 4772052, Morain.

In regards to claims 14 and 15, Kodama et al disclose the press-fitting portion is provided along the length L with the following portions, one immediately after another: a first truncated-conical-shaped portion extending from the ring-shaped end face; a cylindrical-shaped root portion, a plurality of truncated-conical-shaped annular projections each followed by a ring-shaped face and another cylindrical-shaped root portion. Kodama et al do not disclose a second truncated-conical-shaped portion, which ends abutting with the ring-shaped end face of the connector body. In Figure 3 below, Morain teaches a second truncated-conical-shaped portion, which ends abutting with the ring-shaped end face of the connector body. As Morain relates to an improved highly effective coupling which can be very expeditiously employed to connect one tubular member to another tubular member, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a second truncated-conical-shaped portion, which ends abutting with the ring-shaped end face of the connector body, since a change in the shape of a prior art device is a design

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consideration within the level of skill of one skilled in the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).



In regards to claim 9, Kodama et al disclose the plurality of annular projections comprises first and second annular projections disposed adjacently to each other, and the first annular projection is closer to a distal end of the press-fitting portion than the second annular projection.

In regards to claim 10, Kodama et al disclose the plurality of annular projections comprises first and second annular projections disposed adjacently to each other, and among the plurality of the annular projections, the first annular projection is closest to a distal end of the press-fitting portion.

In regards to claim 12, Kodama et al disclose no portion of the press-fitting portion has an outer diameter larger than an outer diameter d5 of each of the truncated-conical-shaped annular projections.

In regards to claim 13, Kodama et al disclose no portion of the press-fitting portion has an outer diameter larger than an outer diameter d5 of each of the truncated-conical-shaped annular projections.

Response to Arguments

Applicant's arguments with respect to claims above have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's argument that the Morain reference only discloses a retention wire for holding the plug in the receptacle member, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON DUNWOODY whose telephone number is (571)272-7080. The examiner can normally be reached on 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AARON DUNWOODY/
Primary Examiner, Art Unit 3679

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